

Listing of the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A method for determining optimal harvest window of medicinal plants, the method comprising the steps of:
 - harvesting at least one plant at a plurality of maturation stages for the plant;
 - adding a preparation of the plant to a monocyte cell culture;
 - harvesting the cell culture;
 - analyzing the cell culture for a level of a transcriptional product the medicinal plant induces from the cell culture; and
 - observing the level of product corresponding to each of the different maturation stages;
 - determining a concentration of a marker compound for each of the plants at the plurality of maturation stages; and
 - selecting a maturation stage with an acceptable concentration of marker compound and a most potent induction activity.
2. (Cancelled)
3. (Currently amended) A method for determining optimal harvest window of *Echinacea* plants, the method comprising the steps of:
 - harvesting at least one plant at a plurality of maturation stages for the plant;
 - adding a preparation of the plant to a monocyte cell culture;
 - harvesting the cell culture;
 - analyzing the cell culture for a level of immune-stimulatory product induced by *Echinacea*; and
 - observing the level of the immune-stimulatory product corresponding to each of the different maturation stages;
 - determining a concentration of a marker compound of each of the plants at the plurality of maturation stages; and

selecting a maturation stage with an acceptable concentration of marker compound and a most potent induction activity.

4. (Cancelled)
5. (Currently Amended) The method of claim 4 3 wherein the marker compound is selected from a group consisting of chicoric acid, alkylamides, glycoproteins, ~~polysaccharides~~ polysaccharides and combinations thereof.
6. (Previously Presented) The method of claim 3 wherein the immune-stimulatory product is selected from the group consisting of cytokine mRNA and chemokine mRNA.
7. (Previously Presented) The method of claim 3 wherein the immune-stimulatory product is an mRNA transcript selected from the group consisting of IL-1 alpha, IL-1 beta, IL-6, IL-8, IL-10, tumor necrosis factor alpha, interferon-gamma and macrophage inflammatory protein-1.
8. (Withdrawn) A method of augmenting the immune-stimulatory effects of *Echinacea* extracts, the method comprising the steps of:
 - harvesting an *Echinacea* plant during a maturation stage that includes stages prior to full bloom;
 - drying the plant;
 - reducing the plant size; and
 - extracting the plant with a solvent.
9. (Withdrawn) The method of claim 8 wherein the maturation stage is vegetative.
10. (Withdrawn) The method of claim 8 further comprising the step of maintaining a standardized level of chicoric acid.
11. (Withdrawn) A method of augmenting the immune-stimulatory effects of *Echinacea* extracts, the method comprising the steps of:
 - harvesting an *Echinacea* plant during a maturation stage that is vegetative
 - drying the plant;
 - reducing the plant size; and
 - extracting the plant with a solvent.
12. (Withdrawn) An *Echinacea* preparation comprising:
 - a standardized concentration of chicoric acid; and
 - an augmented level of immune-stimulatory activity;

wherein the preparation was obtained from an *Echinacea* plant harvested during a maturation stage prior to full bloom.

13. (Withdrawn) The preparation of claim 12, wherein the augmented level of immune-stimulatory activity is measured by inducement in THP-1 cells of an mRNA transcript selected from the group consisting of: IL-1 alpha, IL-1 beta, IL-6, IL-8, IL-10, tumor necrosis factor alpha, interferon-gamma and macrophage inflammatory protein-1.

14. (Withdrawn) The preparation of claim 12, wherein the augmented level of immune-stimulatory activity is measured by inducement in THP-1 cells of an mRNA transcript selected from the group consisting of tumor necrosis factor alpha and interferon-gamma.

15. (Withdrawn) An *Echinacea* preparation comprising:
a standardized concentration of chicoric acid; and
an augmented level of immune-stimulatory activity;
wherein the preparation was obtained from a plant harvested during the vegetative stage.

16. (Withdrawn) The preparation of claim 15, wherein the augmented level of immune stimulatory activity is measured by inducement in THP-1 cells of an mRNA transcript selected from the group consisting of: IL-1 alpha, IL-1 beta, IL-6, IL-8, IL-10, tumor necrosis factor alpha, interferon-gamma and macrophage inflammatory protein-1.

17. (Withdrawn) The preparation of claim 15, wherein the augmented level of immune stimulatory activity is measured by inducement in THP-1 cells of an mRNA transcript selected from the group consisting of tumor necrosis factor alpha and interferon-gamma.

18. (Withdrawn) An *Echinacea* preparation comprising:
a standardized concentration of chicoric acid,
wherein the preparation induces an augmented level of immune-stimulatory activity; and
wherein the preparation was obtained from a plant harvested during a vegetative stage.

19. (Withdrawn) The preparation of claim 18, wherein the augmented level of immune-stimulatory activity is measured by inducement in THP-1 cells of an mRNA transcript selected from the group consisting of: IL-1 alpha, IL-1 beta, IL-6, IL-8, IL-10, tumor necrosis factor alpha, interferon-gamma and macrophage inflammatory protein-1.
20. (Withdrawn) he preparation of claim 18, wherein the augmented level of immune-stimulatory activity is measured by inducement in THP-1 cells of an mRNA transcript selected from the group consisting of tumor necrosis factor alpha and interferon-gamma.
21. (Withdrawn) A preparation of *Echinacea purpurea* comprising:
a standardized level of chicoric acid of at least about 3.49 percent as measured by HPLC analysis;
wherein the preparation provides an augmented immune-stimulatory response in THP-1 cells of at least 100 times.
22. (Withdrawn) The preparation of claim 21 wherein the augmented immune-stimulatory response is measured by inducement in the cells of an mRNA transcript selected from the group consisting of tumor necrosis factor-alpha and interferon-gamma.
23. (New) The method of claim 1, wherein the monocyte cell culture is a THP-1 cell culture.
24. (New) A method for determining optimal harvest window of *Echinacea* plants, the method comprising the steps of:
harvesting at least one plant at a plurality of maturation stages for the plant;
adding an extract of the plant to a monocyte or macrophage cell culture;
harvesting the cell culture;
analyzing the cell culture for a level of a translational product the medicinal plant induces from the cell culture;
observing the level of product corresponding to each of the different maturation stages;
determining a concentration of marker compound for each of the plants at the plurality of maturation stages; and
selecting a maturation stage with an acceptable concentration of marker compound and a highest level of product induced from the cell culture.

25. (New) The method of claim 24, wherein the monocyte or macrophage cell culture is a THP-1 cell culture.

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